UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,129	12/16/2005	Jun Shi	US030175US	6095

24737 7590 09/18/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
WYLLIE, CHRISTOPHER T	
ART UNIT	PAPER NUMBER
2619	
MAIL DATE	DELIVERY MODE
09/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,129	SHI ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER T. WYLLIE	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/16/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED OFFICE ACTION

1. Claims 1-34 are pending in Application 10/561,129.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 9-12, 19, and 25-26 is rejected under 35 U.S.C. 102(b) as being anticipated by Saeijs et al. (US 5,596,581).

Regarding claim 1, Saeijs et al. discloses a method of recording an MPEG compliant transport stream selected by a user on a storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**, comprising: receiving said transport stream, said transport stream comprising transport stream packets **(column 10, lines 30-32 [sequence numbers are generated for the transport packets received in the MPEG data stream])**; removing stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes **(column 10, lines 37-41 [packets not related to the selected MPEG data stream are deleted include dummy packets]);** recording all transport stream packets on said storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**; and recording an entry in a program information file on said storage media indicating that stuffing bytes were removed from said transport stream **(column 10, 45-54 [sequence numbers are stored in the third block; by checking the sequence**

numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream]).

Regarding claim 9, Saeijs et al. further discloses compressing the transport stream **(column 10, lines 37-41 [packets not related to the selected MPEG data stream are deleted include dummy packets; thereby compressing the stream])**.

Regarding claim 10, Saeijs et al. further discloses said compressing said transport stream includes changing the bit-rate of said transport stream **(column 10, lines 37-41 and 58-59 [packets not related to the selected MPEG data stream are deleted include dummy packets; thereby compressing the stream and giving the stream a variable bit rate])**.

Regarding claim 11, Saeijs et al. discloses a method of playing back an MPEG compliant transport stream selected by a user from a storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**, comprising: (a) receiving said transport stream, said transport stream comprising transport stream packets **(column 10, lines 30-32 [sequence numbers are generated for the transport packets received in the MPEG data stream])**; removing stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes **(column 10, lines 37-41 [packets not related to the selected MPEG data stream are deleted include dummy packets]);** recording all transport stream packets on said storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**; and recording an entry in a program information file on said storage media

indicating that stuffing bytes were removed from said transport stream **(column 10, 45-54 [sequence numbers are stored in the third block; by checking the sequence numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream]),** (b) reading out each transport stream packet from said transport stream and said entry in said in said program information file, and (c) adding stuffing bytes to each transport stream packet in said transport stream from which stuffing bytes were removed prior to recording based on said entry in said program information file indicating stuffing bytes were removed from said transport stream **(column 10, 45-54 [sequence numbers are stored in the third block when the user is ready for playback the recorder checks the sequence numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream])**.

Regarding claim 12, Saeijs et al. further discloses the step of adding stuffing bytes to each transport stream packet in said transport stream from which stuffing bytes were removed prior to recording further includes determining which of said transport stream packets were stuffing packets and adding a sufficient number of bytes following a header of said stuffing packets following said header field to increase the length of said transport packet to a MPEG standard length **(column 10, 45-54 [sequence numbers are stored in the third block when the user is ready for playback the recorder checks the sequence numbers, it can be determined whether the MPEG**

data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream]).

Regarding claim 19, Saeijs et al. discloses an apparatus for recording and playing back an MPEG compliant transport stream selected by a user on a storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**, comprising: means for receiving said transport stream, said transport stream comprising transport stream packets **(column 10, lines 30-32 [sequence numbers are generated for the transport packets received in the MPEG data stream])**; means for removing stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes **(column 10, lines 37-41 [packets not related to the selected MPEG data stream are deleted include dummy packets])**; means for recording all transport stream packets on said storage media **(column 7, lines 23-25 [the MPEG transport is recorded on a video recorder])**; means for recording an entry in a program information file on said storage media indicating that stuffing bytes were removed from said transport stream **(column 10, 45-54 [sequence numbers are stored in the third block; by checking the sequence numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream])**; means for reading out each transport stream packet from said transport stream and said; and means for adding stuffing bytes to each transport stream packet in said transport stream from which stuffing bytes were

removed prior to recording based on said entry in.. said program information file indicating stuffing bytes were removed from said transport stream **(column 10, 45-54 [sequence numbers are stored in the third block when the user is ready for playback the recorder checks the sequence numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream])**.

Regarding claim 25, Saeijs et al. further discloses compressing the transport stream **(column 10, lines 37-41 [packets not related to the selected MPEG data stream are deleted include dummy packets; thereby compressing the stream])**.

Regarding claim 26, Saeijs et al. further discloses said compressing said transport stream includes changing the bit-rate of said transport stream **(column 10, lines 37-41 and 58-59 [packets not related to the selected MPEG data stream are deleted include dummy packets; thereby compressing the stream and giving the stream a variable bit rate])**.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saeijs et al. (US 5,596,581) in view of Ryan (EP 0993201).

Regarding claim 2, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose the step of removing stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes further includes determining which of said transport stream packets are stuffing packets and removing all bytes following a header of said stuffing packets from said transport stream packets determined to be stuffing packets. However, Ryan discloses such a feature **(see**

Abstract, lines 1-4 [the MPEG-2 video decoder identifies and removes stuffing data from the MPEG-2 bit stream]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ryan into the system of Saeijs et al. The method of Ryan can be implemented by incorporating a decoder that removes all stuffing data from the MPEG data stream. The motivation for this is to compress the data stream for efficient storing.

8. Claims 3-4, 13-14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeijs et al. (US 5,596,581) in view of Naimpally et al. (US 5,650,825).

Regarding claim 3, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose the step of removing stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes further includes determining which transport stream packets contain adaptation fields followed by only stuffing bytes and removing all bytes following said adaptation field from transport stream packets containing adaptation fields followed by only stuffing bytes. However, Naimpally et al. discloses such a feature **(column 7, lines 28-32 [stuffing data is used in the adaptation field of the transport header as well as the transport payload; stuffing data is removed from both (see Fig.3 [the transport packet stream contains a header and payload; the adaptation field is the last field of the**

transport header and is only followed by the payload which contains stuffing data; therefore stuffing data after the adaptation field is deleted)]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ryan into the system of Naimpally et al. The method of Naimpally et al. can be implemented by removing all stuffing data from the MPEG data stream following the adaptation field. The motivation for this is to compress the data stream for efficient storing.

Regarding claim 4, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that the transport stream is a single program stream. However, Naimpally et al. discloses such a feature **(see Figure 2, Video Encoder, Audio Encoder, Data Encoder and Multiplexer [all three outputs of the encoders are multiplexed to become one single program stream])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally et al. into the system of Saeijs et al. The method of Naimpally et al. can be implemented by enabling a multiplexed to create a single stream program. The motivation for this is to transport the program efficiently.

Regarding claim 13, Saeijs et al. further discloses the step of adding stuffing bytes to each transport stream packet in said transport stream from which stuffing bytes were removed prior to recording **(column 10, 45-54 [sequence numbers are stored in the third block when the user is ready for playback the recorder checks the sequence numbers, it can be determined whether the MPEG data stream contains**

any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream]), but does not disclose determining which recorded transport stream packets contain only header fields and adaptation fields and adding to said transport stream packets contain only header fields and adaptation fields a sufficient number of bytes following said adaptation field to increase the length of said transport packet to a MPEG standard length. However, Naimpally et al. discloses such a feature **(column 7, lines 28-32 [stuffing data is used in the adaptation field of the transport header as well as the transport payload; stuffing data is removed from both (see Fig.3 [the transport packet stream contains a header and payload; the adaptation field is the last field of the transport header and is only followed by the payload which contains stuffing data; therefore stuffing data after the adaptation field is deleted)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally et al. into the system of Saeijs et al. The method of Naimpally et al. can be implemented by enabling the recorder to determine which packets of the data stream contain deleted stuffing bits by the sequence number and replace the deleted bits in order to reform the original data stream.

Regarding claim 14, Saeijs et al. discloses all the claimed subject matter recited in claim 11, but does not disclose that the transport stream is a single program stream. However, Naimpally et al. discloses such a feature **(see Figure 2, Video Encoder,**

Audio Encoder, Data Encoder and Multiplexer [all three outputs of the encoders are multiplexed to become one single program stream]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally et al. into the system of Saeijs et al. The method of Naimpally et al. can be implemented by enabling a multiplexed to create a single stream program. The motivation for this is to transport the program efficiently.

Regarding claim 20, Saeijs et al. discloses all the claimed subject matter recited in claim 19, but does not disclose that the transport stream is a single program stream. However, Naimpally et al. discloses such a feature **(see Figure 2, Video Encoder, Audio Encoder, Data Encoder and Multiplexer [all three outputs of the encoders are multiplexed to become one single program stream])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally et al. into the system of Saeijs et al. The method of Naimpally et al. can be implemented by enabling a multiplexed to create a single stream program. The motivation for this is to transport the program efficiently.

9. Claims 5-6, 15-16, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeijs et al. (US 5,596,581) in view of Naimpally (US 5,619,337).

Regarding claim 5, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that transport stream is a multiple program transport

stream and further including selecting from said transport stream a single program and converting said multiple program transport stream into a single program transport stream containing said selected single program. However, Naimpally discloses such a feature **(column 9, lines 66-67 [a single program stream is selected from a multiple program transport stream; the selected program is then recorded])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of Saeijs et al. The method of Naimpally can be implemented by enabling the user to select a single program to record out of a multiple program transport stream. The motivation for this is to allow multiple users to record different programs within one transport stream.

Regarding claim 6, the references as applied above disclose all the claimed subject matter recited in claim 5. However, Naimpally further discloses that the single program transport stream contains service information table data for all programs in said multiple program transport stream **(column 6, lines 35-41 [the signal comprises a program association table as well as a program map table])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of Saeijs et al. The method of Naimpally can be implemented by sending a program map table with the program stream. The motivation for this is to have information regarding all programs sent within the transport stream.

Regarding claim 15, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that transport stream is a multiple program transport stream and further including selecting from said transport stream a single program and converting said multiple program transport stream into a single program transport stream containing said selected single program. However, Naimpally discloses such a feature **(column 9, lines 66-67 [a single program stream is selected from a multiple program transport stream; the selected program is then recorded])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of Saeijs et al. The method of Naimpally can be implemented by enabling the user to select a single program to record out of a multiple program transport stream. The motivation for this is to allow multiple users to record different programs within one transport stream.

Regarding claim 16, the references as applied above disclose all the claimed subject matter recited in claim 15. However, Naimpally further discloses that the single program transport stream contains service information table data for all programs in said multiple program transport stream **(column 6, lines 35-41 [the signal comprises a program association table as well as a program map table])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of Saeijs et al. The method of Naimpally can be implemented by sending a program map

table with the program stream. The motivation for this is to have information regarding all programs sent within the transport stream.

Regarding claim 21, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that transport stream is a multiple program transport stream and further including selecting from said transport stream a single program and converting said multiple program transport stream into a single program transport stream containing said selected single program. However, Naimpally discloses such a feature **(column 9, lines 66-67 [a single program stream is selected from a multiple program transport stream; the selected program is then recorded])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of Saeijs et al. The method of Naimpally can be implemented by enabling the user to select a single program to record out of a multiple program transport stream. The motivation for this is to allow multiple users to record different programs within one transport stream.

Regarding claim 22, the references as applied above disclose all the claimed subject matter recited in claim 21. However, Naimpally further discloses that the single program transport stream contains service information table data for all programs in said multiple program transport stream **(column 6, lines 35-41 [the signal comprises a program association table as well as a program map table])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of

Saeijs et al. The method of Naimpally can be implemented by sending a program map table with the program stream. The motivation for this is to have information regarding all programs sent within the transport stream.

10. Claims 7, 17, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeijs et al. (US 5,596,581) in view of Naimpally (US 5,619,337) as applied to claim 5, 15, and 21 above, and further in view of Ludvig et al. (US 7,216,170).

Regarding claim 7, the references as applied above disclose all the claimed subject matter recited in claim 5, but do not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

Regarding claim 17, the references as applied above disclose all the claimed subject matter recited in claim 15, but do not disclose that the single program transport stream contains service information table data adapted for an application running in a

DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

Regarding claim 23, the references as applied above disclose all the claimed subject matter recited in claim 21, but do not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

11. Claims 8, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeijs et al. (US 5,596,581) in view of Ludvig et al. (US 7,216,170).

Regarding claim 8, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of Saeijs et al. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

Regarding claim 18, Saeijs et al. discloses all the claimed subject matter recited in claim 1, but does not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of Saeijs et al. The method of Ludvig et al. can be implemented by enabling the receiver

of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

Regarding claim 24, Saeijs et al. discloses all the claimed subject matter recited in claim 19, but does not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of Saeijs et al. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

12. Claims 27 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Naimpally et al. (US 5,650,825) in view of Saeijs et al. (US 5,596,581).

Regarding claim 27, the background of Naimpally et al. discloses an apparatus for recording and playing back an MPEG compliant transport stream selected by a user on a storage media **(see Figure 1, [the apparatus of figure 1 contains a storage module where the transmitted stream is recorded for future playback])**, comprising: a transport stream de-multiplexer and decryptor receiving said transport

stream, said transport stream comprising transport stream packets, said transport stream de- multiplexer and decryptor adapted to generate a video elementary stream and an audio elementary stream from said transport stream **(see Figure 1, System Decoder and De-multiplexer 122 [the element 122 produces an audio and video output from the multiplexed stream])** and an audio and video decoder and presenter adapted to convert said a video elementary stream and an audio elementary stream to a playable output signal **(see Figure 1, System Decoder and De-multiplexer 122 and Decoders 128 and 130 [the decoder and de-multiplexer 122 provides the separated audio and video signals to audio and video decoders 128 and 130])**, but does not disclose a stream modifier coupled to said transport stream de-multiplexer and decryptor, said stream modifier adapted to receive said transport stream from said transport stream de-multiplexer and decryptor, said stream modifier further adapted to remove stuffing bytes from each transport stream packet in said transport stream containing stuffing bytes and a stream de-modifier coupled between said storage apparatus and said transport stream de-multiplexer and decryptor, said stream de-modifier adapted to reading out each transport stream packet from said transport stream and further adapted to add back all stuffing bytes to each transport stream packet removed by said stream modifier prior to recording based on said entry in said signal indicating stuffing bytes were removed from said transport stream and a recording apparatus adapted to record all transport stream packets on said storage media and the stream modifier further adapted to send a signal to said recording apparatus, said signal indicating that stuffing bytes were removed from said transport

stream and said signal recorded by said recording apparatus. However, Saeijs et al. discloses such features **(column 7, lines 23-25 and column 10, lines 37-41 and 45-54 [the MPEG transport stream is recorded on a video recorder; packets not related to the selected MPEG data stream are deleted include dummy packets; sequence numbers are stored in the third block; by inspecting the sequence numbers, it can be determined whether the MPEG data stream contains any deleted packets such as dummy packets; dummy packets are inserted into the stream to create a replica of the original MPEG data stream; therefore the apparatus of Saeijs et al. can remove stuffing bits and later place them back into the data stream to recreate the original transfer stream])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the components of Saeijs et al. into the apparatus of the background of Naimpally et al. in order to perform the method of claim1.

Regarding claim 32, the background of Naimpally et al. further discloses a transcoder adapted to compress said transport stream **(see Figure 1, System Coder 118)**.

Regarding claim 33, the references as applied above disclose all the claimed subject recited in claim 32. However, Saeijs et al. further discloses that the transcoder is adapted to change the bit-rate of said transport stream **column 10, lines 37-41 and 58-59 [packets not related to the selected MPEG data stream are deleted include**

dummy packets; thereby compressing the stream and giving the stream a variable bit rate]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the components of Saeijs et al. into the apparatus of the background of Naimpally et al. in order to have efficient storing of the signal after the dummy bits are removed.

13. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Naimpally et al. (US 5,650,825) in view of Saeijs et al. (US 5,596,581) as applied to claim 27 above, and further in view of Naimpally (US 5,619,337).

Regarding claim 28, the references as applied above disclose all the claimed subject matter recited in claim 27, but does not disclose that the transport stream de-multiplexer and decryptor further includes a single program transport stream generator adapted to convert said transport stream in the event said transport stream is a multiple program transport stream into a single program transport stream containing a program selected by said user, said single transport stream generator coupled to said stream modifier. However, Naimpally discloses such a feature **(column 9, lines 66-67 [a single program stream is selected from a multiple program transport stream; the selected program is then recorded])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of

the references as applied above. The method of Naimpally can be implemented by enabling the user to select a single program to record out of a multiple program transport stream. The motivation for this is to allow multiple users to record different programs within one transport stream.

Regarding claim 29, the references as applied above disclose all the claimed subject matter recited in claim 28. However, Naimpally further discloses that the single program transport stream contains service information table data for all programs in said multiple program transport stream **(column 6, lines 35-41 [the signal comprises a program association table as well as a program map table])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Naimpally into the system of the references as applied above. The method of Naimpally can be implemented by sending a program map table with the program stream. The motivation for this is to have information regarding all programs sent within the transport stream.

14. Claims 30-31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Naimpally et al. (US 5,650,825) in view of Saeijs et al. (US 5,596,581) in view of Naimpally (US 5,619,337) as applied to claim 28 above, and further in view of Ludvig et al. (US 7,216,170).

Regarding claim 30, the references as applied above disclose all the claimed subject matter recited in claim 28, but do not disclose that the single program transport stream contains service information table data adapted for an application running in a

DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

15. Claims 31 and 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over the background of Naimpally et al. (US 5,650,825) in view of Saeijs et al. (US 5,596,581) as applied to claim 27 above, and further in view of Ludvig et al. (US 7,216,170).

Regarding claim 31, the references as applied above disclose all the claimed subject matter recited in claim 27, but do not disclose that the single program transport stream contains service information table data adapted for an application running in a DVB-MHP. However, Ludvig et al discloses such a feature **(column 6, lines 17-20 [the packet identifier indicates an elementary stream within the transport stream that is defined in a DVB program map table (PMT)])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by

enabling the receiver of the stream to determine which packets belong with each stream based on the DVB program map table thereby allowing the user to receive the correct stream.

Regarding claim 34, the references as applied above disclose all the claimed subject matter recited in claim 27, but do not disclose that the recording apparatus is selected from the group consisting of hard disk drives, optical disk drives, compact disc drives and digital video disk drives. However, Ludvig et al discloses such a feature **(column 24, lines 64 [Ludvig et al. discloses a computer-readable medium])**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the method of Ludvig et al. into the system of the references as applied above. The method of Ludvig et al. can be implemented by encoding a computer-readable medium with instructions in order to perform the method of claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER T. WYLLIE whose telephone number is (571) 270-3937. The examiner can normally be reached on Monday through Friday 8:30am to 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher T. Wyllie/
Examiner, Art Unit 2619

/CTW/
Examiner, Art Unit 2619

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2619